

SEQUENCE LISTING

<110> Wang, Caili
Zhong, Pingyu
Wang, Xinwei

<120> ADAPTER-DIRECTED DISPLAY SYSTEMS

<130> 13403.0005NPUS00

<160> 24

<170> PatentIn version 3.1

<210> 1

<211> 57

<212> DNA

<213> Bacteriophage M13

<400> 1

gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca ctccgct
57

<210> 2

<211> 19

<212> PRT

<213> Bacteriophage M13

<400> 2

Val Lys Lys Leu Leu Phe Ala Ile Pro Leu Val Val Pro Phe Tyr Ser
1 5 10 15

His Ser Ala

<210> 3

<211> 57

<212> DNA

<213> Bacteriophage M13

<400> 3

gtgaaaaaat tattattcgc aattccttta gtggcacctt tctattctca ctccgct
57

<210> 4
 <211> 222
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic, comprising phage gene III leader sequence, GABAB
 recep
 tor 2 domain and Myc domain

 <400> 4
 ttagtggta ctttctattc tcactccgct acatccgc tggagggcct acagtcagaa
 60

 aaccatcgcc tgcgaatgaa gatcacagag ctggataaag acttgaaaga ggtcaccatg
 120

 cagctgcagg acgtcgagg ttgcgcggcc gcagaacaaa aactcatctc agaagaggat
 180

 ctgagatctg gaggcggtac tgttgaaagt tgtttagcaa aa
 222

 <210> 5
 <211> 74
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Synthetic, comprising phage gene III leader sequence, GABAB
 recep
 tor 2 domain and Myc domain

 <400> 5

 Leu Val Val Pro Phe Tyr Ser His Ser Ala Thr Ser Arg Leu Glu Gly
 1 5 10 15

 Leu Gln Ser Glu Asn His Arg Leu Arg Met Lys Ile Thr Glu Leu Asp
 20 25 30

 Lys Asp Leu Glu Glu Val Thr Met Gln Leu Gln Asp Val Gly Gly Cys
 35 40 45

Ala Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Arg Ser Gly
 50 55 60

Gly Gly Thr Val Glu Ser Cys Leu Ala Lys
 65 70

<210> 6
 <211> 56
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic, comprising phage gene III leader sequence, GABAB
 recep
 tor 2 domain and Myc domain

<400> 6

Thr Ser Arg Leu Glu Gly Leu Gln Ser Glu Asn His Arg Leu Arg Met
 1 5 10 15

Lys Ile Thr Glu Leu Asp Lys Asp Leu Glu Glu Val Thr Met Gln Leu
 20 25 30

Gln Asp Val Gly Gly Cys Ala Ala Ala Glu Gln Lys Leu Ile Ser Glu
 35 40 45

Glu Asp Leu Arg Ser Gly Gly
 50 55

<210> 7
 <211> 3093
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic, comprising ampicillin gene sequence, ColE1 repli
 cation
 or 1 d
 origin, f1 replication origin, Plac promoter, GABAB recept
 omain, histidine tag

<400> 7
gcgcaacgca attaatgtga gttagctcac tcattaggca ccccaggctt tacactttat
60

gcttcggct cgtatgttgt gtggaattgt gagcggataa caatttacccg gttctttaag
120

gaggaattaa aaaatgaaat acctattgcc tacggcagcc gctggattgt tattactcgc
180

ggcccagccg gccatggcgg ccctgcaggc ctctagagcg gccgctggag gtgaggagaa
240

gtcccggtcg ttggagaagg agaaccgtga actggaaaag atcattgtg agaaagagga
300

gcgtgtctct gaactgcgcc atcaactcca gtctgttagga ggtttagat cttatccata
360

cgacgtacca gactacgcag gaggtcatca ccatcatcac cattaatgag tcgaccccgaa
420

ccaattcgcc ctatagttag tcgtattaca attcaactggc cgtcgtttta caacgtcgtg
480

actggaaaaa ccctggcggtt acccaactta atcgccctgc agcacatccc ccttcgcca
540

gctggcgtaa tagcgaagag gcccgcaccg atcgcccttc ccaacagttg cgccgcctga
600

atggcgaatg ggacgcgcgc tgtagcggcg cattaagcgc ggcgggtgtg gtggttacgc
660

gcagcgtgac cgctacactt gccagcgcgc tagcgcccgcc tccttcgct ttctccctt
720

ccttcgtcgac cacgttcgccc ggcttcccc gtcaagctct aaatcgaaaaa ctcccttttag
780

ggttccgatt tagtgctta cggcacctcg accccaaaaa acttgattag ggtgatggtt
840

cacgttagtgg gccatgcgc tgatagacgg ttttcgccc tttgacgttg gagtccacgt
900

tcttaatag tggactcttg ttccaaactg gaacaacact caaccctatc tcgggtctatt

960

cttttgattt ataaggatt ttgccgattt cggcctattt gttaaaaat gagctgattt
1020

aacaaaaatt taacgcgaat tttaacaaaa tattaacgct tacaatttagt gtggcacttt
1080

tcggggaaat gtgcgcggaa cccctattt gttattttc taaatacatt caaatatgtt
1140

tccgctcatg agacaataac cctgataaaat gcttcaataa tattgaaaaa ggaagagtt
1200

gagtattcaa cattccgtg tcgcccattt tccctttttt gccgcatttt gccttcctgt
1260

tttgctcac ccagaaacgc tggtaaaagt aaaagatgct gaagatcagt tgggtgcacg
1320

agtgggttac atcgaactgg atctcaacag cgtaagatc cttgagagtt ttgcffffga
1380

agaacgtttt ccaatgatga gcactttaa agttctgcta tgtggcgccg tattatcccg
1440

tattgacgcc gggcaagagc aactcggtcg ccgcatacac tattctcaga atgacttgg
1500

tgagtactca ccagtcacag aaaagcatct tacggatggc atgacagttaa gagaattatg
1560

cagtgctgcc ataaccatga gtgataacac tgcggccaac ttacttctga caacgatcgg
1620

aggaccgaag gagctaaccg ctttttgca caacatgggg gatcatgttta ctcgccttga
1680

tcgttggaa ccggagctga atgaagccat accaaacgac gagcgtgaca ccacgatgcc
1740

tgttagcaatg gcaacaacgt tgcgcaaact attaactggc gaactactta ctctagcttc
1800

ccggcaacaa ttaatagact ggatggaggc ggataaagtt gcaggaccac ttctgcgctc
1860

ggcccttccg gctggctggt ttattgctga taaatctgga gccggtgagc gtgggtctcg

1920

cggatcatt gcagcaactgg ggccagatgg taagccctcc cgtatcgtag ttatctacac
1980

gacggggagt caggcaacta tggatgaacg aaatagacag atcgctgaga taggtgcctc
2040

actgatTAAG cattggtaac tgTCAGACCA agTTTACTCA tATATACTTT agATTGATT
2100

aaaACTTcat tTTTAATTa aaaggatcta ggtGAAGATC CTTTTGATA ATCTCATGAC
2160

caAAATCCCT taACGTGAGT tTTCGTtCCA CTGAGCGtCA GACCCGtAG AAAAGATCAA
2220

aggatCTTCT tgAGATCCTT tTTTCTGCG CGTAATCTGC TGCTTGAAA CAAAAAAACC
2280

accgCTACCA GCGGTGGTTT GTTGCcGGA TCAAGAGCTA CCAACTCTT TTCCGAAGGT
2340

aactGGCTTC AGCAGAGCGC AGATAACAAA TACTGTCTT CTAGTGTAGC CGTAGTTAGG
2400

ccaccACTTC AAGAACtCTG TAGCACCGCC TACATACCTC GCTCTGCTAA TCCtGTTACC
2460

agtGGCTGCT GCCAGTGGCG ATAAGTCGTG TCTTACCGGG TTGGACTCAA GACGATAGTT
2520

accggataAG GCGCAGCGGT CGGGCTGAAC GGGGGGTTCG TGCACACAGC CCAGCTTGG
2580

gcgaACGACC TACACCGAAC TGAAGATACT ACAGCGTGAG CTATGAGAAA GCGCCACGCT
2640

tcccgaAGGG AGAAAGGCGG ACAGGTATCC GTTAAGCGGC AGGGTCGGAA CAGGAGAGCG
2700

cacgAGGGAG CTTCCAGGGG GAAACGCCTG GTATCTTAT AGTCCTGTCG GGTTCGCCA
2760

cctctgactt gagcgtcgat ttttgtatg ctcgtcaggg gggcggagcc tatggaaaa
2820

cgccAGCAAC GCGGCCTTT tacggTTCTT GGCCTTTGC TGGCCTTTG CTCACATGTT

2880

ctttcctgcg ttatcccctg attctgtgga taaccgtatt accgccttg agtgagctga
2940

taccgctcgc cgccagccgaa cgaccgagcg cagcgagtca gtgagcgagg aagcggaga
3000

gcgcccaata cgcaaaccgc ctctcccgc gcgttggccg attcattaat gcagctggca
3060

cgacaggttt cccgactgga aagcgggcag tga
3093

<210> 8

<211> 192

<212> DNA

<213> Bacteriophage M13

<400> 8

ttagtggtag ctttcttattc tcactccgct taggcttgcg gtgggtgcggc cgccagaacaa
60

aaactcatct cagaagagga tctgagatct agatctggag gcggtaactgt taaaagttgt
120

ttagcaaaac ctcatacaga aaattcattt actaacgtct ggaaagacga caaaacttta
180

gatcgttacg ct

192

<210> 9

<211> 64

<212> PRT

<213> Bacteriophage M13

<220>

<221> MISC_FEATURE

<222> (11)..(11)

<223> Xaa = stop codon

<400> 9

Leu Val Val Pro Phe Tyr Ser His Ser Ala Xaa Ala Cys Gly Gly Ala

1

5

10

15

Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Arg Ser Arg Ser
 20 25 30

Gly Gly Gly Thr Val Glu Ser Cys Leu Ala Lys Pro His Thr Glu Asn
 35 40 45

Ser Phe Thr Asn Val Trp Lys Asp Asp Lys Thr Leu Asp Arg Tyr Ala
 50 55 60

<210> 10
 <211> 2962

<212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic, comprising ampicillin gene sequence, ColE1 replication
 origin, f1 replication origin, Plac promoter, influenza virus he
 magglutinin tag

<400> 10

gcgcacacgca attaatgtga gtttagctcac tcattaggca ccccaggctt tacactttat
 60

gcttccggct cgtatgttgt gtggaaattgt gagcggataa caatttaccg gttcttttaa
 120

cttttagtaag gaggaattaa aaaatgaaat acctattgcc tacggcagcc gctggattgt
 180

tattactcgc ggcccagccg gccatggcgg ccctgcaggc ctctagagcg gccgcttacc
 240

cgtacgacgt tccggactac gcaggtggct gctgataagt cgacctcgac caattcgccc
 300

tatagtgagt cgtattacaa ttcaactggcc gtcgtttac aacgtcgtga ctggaaaac
 360

cctggcgtta cccaaacttaa tcgccttgca gcacatcccc ctttcgccag ctggcgtaat
 420

FO20TCW-000000000000

agcgaagagg cccgcaccga tcgccc ttcc caacagttgc gcagcctgaa tggcgaatgg
480

gacgcgcct gttagggcgc attaagcgcg gcgggtgtgg tggttacgcg cagcgtgacc
540

gctacacttg ccagcgcct agcgcccgct ctttcgctt tcttcccttc ctttctcgcc
600

acgttcgccc gcttccccg tcaagctcta aatcgggggc tccctttagg gttccgattt
660

agtgccttac ggcaccccgta ccccaaaaaa cttgattttagg gtgatggttc acgtatggg
720

ccatcgccct gatagacggt ttttcgcct ttgacgttgg agtccacgtt cttaatagt
780

ggactcttgt tccaaactgg aacaacactc aaccctatct cggtctattc tttgattta
840

taagggattt tgccgatttc ggcctattgg ttaaaaaatg agctgattta acaaaaattt
900

aacgcgaatt ttaacaaaat attaacgctt acaattttagg tggcactttt cgggaaatg
960

tgcgcgaaac ccctatttgt ttattttct aaatacattc aaatatgtat ccgctcatga
1020

gacaataacc ctgataaaatg cttcaataat attgaaaaag gaagagttatg agtattcaac
1080

atttccgtgt cgcccttatt cccttttg cggcattttg cttcctgtt tttgctcacc
1140

cagaaaacgct ggtgaaagta aaagatgctg aagatcagtt gggtgcacga gtgggttaca
1200

tcgaactgga tctcaacagc ggtaagatcc ttgagagttt tcgccccgaa gaacgtttc
1260

caatgatgag cactttaaa gttctgctat gtggcgcggt attatccgt attgacgccc
1320

ggcaagagca actcggtcgc cgcatacact attctcagaa tgacttggtt gagtactcac
1380

cagtcacaga aaagcatctt acggatggca tgacagtaag agaattatgc agtgctgcca
1440

taaccatgag tgataaacact gcggccaact tacttctgac aacgatcgga ggaccgaagg
1500

agctaaccgc tttttgcac aacatggggg atcatgtaac tcgccttgat cggtggaaac
1560

cgagactgaa tgaagccata ccaaacgacg agcgtgacac cacgatgcct gtagcaatgg
1620

caacaacgtt gcgcaaacta ttaactggcg aactacttac tctagcttcc cgccaacaat
1680

taatagactg gatggaggcg gataaagttg caggaccact tctgcgctcg gcccttccgg
1740

ctggctggtt tattgctgat aaatctggag ccggtgagcg tgggtctcgc ggtatcattg
1800

cagcactggg gccagatggt aagccctccc gtatcgtagt tatctacacg acggggagtc
1860

aggcaactat ggatgaacga aatagacaga tcgctgagat aggtgcctca ctgattaagc
1920

attgtaact gtcagaccaa gtttactcat atatacttta gattgattta aaacttcatt
1980

tttaatttaa aaggatctag gtgaagatcc ttttgataa tctcatgacc aaaatccctt
2040

aacgtgagtt ttcgccac tgagcgtcag accccgtaga aaagatcaaa ggatcttctt
2100

gagatccttt tttctgcgc gtaatctgct gcttgcaaac aaaaaaacca ccgctaccag
2160

cggtggttt tttgcggat caagagctac caactcttt tccgaaggta actggcttca
2220

gcagagcgca gataccaaat actgtccttc tagttagcc gtagtttaggc caccacttca
2280

agaactctgt agcaccgcct acataacctg ctctgctaat cctgttacca gtggctgctg
2340

ccagtggcga taagtcgtgt cttaccgggt tggactcaag acgatagttt ccggataagg
2400

cgcagcggtc gggctgaacg gggggttcgt gcacacagcc cagcttggag cgaacgacct
2460

acaccgaact gagataccta cagcgtgagc tatgagaaag cgccacgctt cccgaaggg
2520

gaaaggcggaa caggtatccg gtaagcggca gggtcggAAC aggagagcgc acgagggagc
2580

ttccaggggg aaacgcctgg tatcttata gtcctgtcgg gtttcggccac ctctgacttg
2640

agcgtcgatt tttgtgatgc tcgtcaggggg ggcggagcct atggaaaaac gccagcaacg
2700

cggcctttt acggttcctg gcctttgct ggcctttgc tcacatgttc tttcctgcgt
2760

tatcccctga ttctgtggat aaccgtatta ccgccttga gtgagctgat accgctcgcc
2820

gcagccgaac gaccgagcgc agcgagtcag tgagcgagga agcggaagag cgcccaatac
2880

gcaaaccgccc tctcccgcg cggtggccga ttcattaatg cagctggcac gacaggttc
2940

ccgactggaa agcgggcagt ga
2962

<210> 11

<211> 903

<212> DNA

<213> Bacteriophage M13

<400> 11

ttatgtgtac ctttctattc tcactccgct acatcccgcc tggagggcct acagtcagaa
60

aaccatcgcc tgcgaatgaa gatcacagag ctggataaag acttggaaaga ggtcaccatg
120

cagctgcagg acgtcggagg ttgcgcggcc gcagaacaaa aactgatctc agaagaggat

180

ctgacgcgtg ctggcggcgg ctctggtggt gttctggtg gcggctctga gggggcggc
240

tctgagggtg gcggttctga gggggcggc tctgagggtg gcggttccgg tggcggtcc
300

ggttccggtg attttgatta tgaaaaatg gcaaacgcta ataagggggc tatgaccgaa
360

aatgccgatg aaaacgcgt acagtctgac gctaaaggca aacttgattc tgtcgctact
420

gattacggtg ctgctatcga tggtttcatt ggtgacgttt ccggccttgc taatggtaat
480

gggtctactg gtgattttgc tggctctaatttccaaatgg ctcaagtccgg tgacgggtgat
540

aattcacctt taatgaataa tttccgtcaa tatttacattt ccctccctca atcggttggaa
600

tgtcccccattt ttgtctttgg cgctggtaaa ccatatgaat tttctattga ttgtgacaaa
660

ataaaacttat tccgtgggtt ctttgcgttt cttttatatg ttgccacattt tatgtatgt
720

ttttctacgt ttgctaacaat actgcgtaat aaggagtctt aataaggcgc gccacaattt
780

cacagtaagg aggtttaata aatgaaaaag acagctattg cgattgcagt ggcactggct
840

ggtttcgcta ccgtacgcga ggctagatct ggaggcggta ctgttggaaag ttgttttagca
900

aaa

903

<210> 12
<211> 287
<212> PRT
<213> Bacteriophage M13

<400> 12

Leu Val Val Pro Phe Tyr Ser His Ser Ala Thr Ser Arg Leu Glu Gly
 1 5 10 15

Leu Gln Ser Glu Asn His Arg Leu Arg Met Lys Ile Thr Glu Leu Asp
 20 25 30

Lys Asp Leu Glu Glu Val Thr Met Gln Leu Gln Asp Val Gly Gly Cys
 35 40 45

Ala Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Thr Arg Ala
 50 55 60

Gly Gly Gly Ser Gly Gly Ser Gly Gly Ser Gly Glu Gly Gly Gly
 65 70 75 80

Ser Glu Gly Gly Ser Glu Gly Gly Ser Glu Gly Gly Ser
 85 90 95

Gly Gly Gly Ser Gly Ser Gly Asp Phe Asp Tyr Glu Lys Met Ala Asn
 100 105 110

Ala Asn Lys Gly Ala Met Thr Glu Asn Ala Asp Glu Asn Ala Leu Gln
 115 120 125

Ser Asp Ala Lys Gly Lys Leu Asp Ser Val Ala Thr Asp Tyr Gly Ala
 130 135 140

Ala Ile Asp Gly Phe Ile Gly Asp Val Ser Gly Leu Ala Asn Gly Asn
 145 150 155 160

Gly Ala Thr Gly Asp Phe Ala Gly Ser Asn Ser Gln Met Ala Gln Val
 165 170 175

Gly Asp Gly Asp Asn Ser Pro Leu Met Asn Asn Phe Arg Gln Tyr Leu
 180 185 190

Pro Ser Leu Pro Gln Ser Val Glu Cys Arg Pro Phe Val Phe Gly Ala
 195 200 205

Gly Lys Pro Tyr Glu Phe Ser Ile Asp Cys Asp Lys Ile Asn Leu Phe
 210 215 220

Arg Gly Val Phe Ala Phe Leu Leu Tyr Val Ala Thr Phe Met Tyr Val
 225 230 235 240

Phe Ser Thr Phe Ala Asn Ile Leu Arg Asn Lys Glu Ser Met Lys Lys
 245 250 255

Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala Thr Val Ala
 260 265 270

Gln Ala Arg Ser Gly Gly Thr Val Glu Ser Cys Leu Ala Lys
 275 280 285

<210> 13

<211> 272

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic, comprising lac promoter, phage gene VIII leader
 sequence, influenza virus hemagglutinin tag, phage gene III sequence

<400> 13

aatttgtgagc ggataacaat ttaccggttc ttttaacttt agtaaggagg aattaaaaaa
 60

tgaaaaagtc tttagtcctc aaagcctccg tagccgttgc taccctcgaa
 120

gcttcgcttc tagagcggcc gcttatccat acgacgtacc agactacgca ggaggtcatc
 180

accatcatca ccattagaga tctggaggcg gtactgttga aagttgttta gcaaaagcta
 240

acatactgcg taataaggag tcttaagtcg ac
272

<210> 14
<211> 69
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic, comprising influenza virus hemagglutinin tag, His
tidin
e tag, phage gene III sequence

<220>
<221> MISC_FEATURE
<222> (46)..(69)
<223> Xaa = stop codon

<400> 14

Met Lys Lys Ser Leu Val Leu Lys Ala Ser Val Ala Val Ala Thr Leu
1 5 10 15

Val Pro Met Leu Ser Phe Ala Ser Arg Ala Ala Ala Tyr Pro Tyr Asp
20 25 30

Val Pro Asp Tyr Ala Gly Gly His His His His His Xaa Arg Ser
35 40 45

Gly Gly Gly Thr Val Glu Ser Cys Leu Ala Lys Ala Asn Ile Leu Arg
50 55 60

Asn Lys Glu Ser Xaa
65

<210> 15
<211> 146
<212> DNA
<213> Homo Sapien

<400> 15
 tctagaggtg gaggaggtga ggagaagtcc cggctgttgg agaaggagaa ccgtgaactg
 60

gaaaagatca ttgctgagaa agaggagcgt gtctctgaac tgccatca actccagtc
 120

gtaggagggtt gttaataggg cgcc
 146

<210> 16
 <211> 44
 <212> PRT
 <213> Homo Sapien

<400> 16

Ser Arg Gly Gly Gly Glu Glu Lys Ser Arg Leu Leu Glu Lys Glu
 1 5 10 15

Asn Arg Glu Leu Glu Lys Ile Ile Ala Glu Lys Glu Glu Arg Val Ser
 20 25 30

Glu Leu Arg His Gln Leu Gln Ser Val Gly Gly Cys
 35 40

<210> 17
 <211> 140
 <212> DNA
 <213> Homo Sapien

<400> 17

tctcgaggag gtgggttggAAC atcccgccTG gagggcctAC agtcagaaaa ccatcgccTG
 60

cgaatgaaga tcacagagct ggataaaagac ttggaagagg tcaccatgca gctgcaggac
 120

gtcggagggtt gcgcgccccgc
 140

<210> 18
 <211> 47

<212> PRT
<213> Homo Sapien

<400> 18

Ser Arg Gly Gly Gly Thr Ser Arg Leu Glu Gly Leu Gln Ser Glu
1 5 10 15

Asn His Arg Leu Arg Met Lys Ile Thr Glu Leu Asp Lys Asp Leu Glu
20 25 30

Glu Val Thr Met Gln Leu Gln Asp Val Gly Gly Cys Ala Ala Ala
35 40 45

<210> 19
<211> 32
<212> DNA
<213> Bacteriophage M13

<400> 19
tttagtggtta cctttctatt ctcactccgc tg
32

<210> 20
<211> 32
<212> DNA
<213> Bacteriophage M13

<400> 20
tagaaaggta ccactaaagg aattgcgaat aa
32

<210> 21
<211> 55
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Primer

<400> 21
ggaattgtga gcggataaca atttaccggt cacacaggaa acagctatga ccatg
55

<210> 22
<211> 55
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Primer

<400> 22
catggtcata gctgttcct gtgtgaccgg taaattgtta tccgctcaca attcc
55

<210> 23
<211> 3057
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic, comprising Ampicillin gene sequence, ColE1 replication
origin, f1 replication origin, lac promoter, GABAB receptor 1 do
main, influenza virus hemagglutinin tag

<400> 23
gcgcaacgca attaatgtga gttagtcac tcattaggca ccccaggctt tacactttat
60

gcttccggct cgtatgttgt gtggaattgt gagcggataa caatttaccg gttctttaag
120

gaggaattaa aaaatgaaaa agtctttagt cctcaaagcc tccgtagccg ttgctaccct
180

cgttccgatg ctaagcttcg ctggtgagga aaagtcccgatg ctgctggaga aagagaaccg
240

tgaactggaa aagatcatttgc ctgagaaaga ggagcgtgtt tctgaactgc gccatcaact
300

gcagtctgtta ggccgttgca cgcgttctag agcggccgct taccctacg acgttccggaa
360

ctacgcatttgc taagtgcacc tcgaccaatt cgccctatag tgagtcgtat tacaattcac
420

tggccgtcgt tttacaacgt cgtgactggg aaaaccctgg cgttacccaa cttaatcgcc
480

ttgcagcaca tcccccttc gccagctggc gtaatagcga agaggcccgc accgatcgcc
540

cttcccaaca gttgcgcagc ctgaatggcg aatgggacgc gccctgttagc ggccgcattaa
600

gcgcggcggg tgtggtggtt acgcgcagcg tgaccgctac acttgccagc gccctagcgc
660

ccgctccttt cgctttcttc cttcccttc tcgccacgtt cgccggcttt ccccgtaag
720

ctctaaatcg ggggctccct ttagggttcc gatttagtgc tttacggcac ctgcacccca
780

aaaaacttga ttagggtgat gttcacgta gtgggccatc gccctgatag acggtttttc
840

gcccttgac gttggagtcc acgttctta atagtggact cttgttccaa actggaacaa
900

cactcaaccc tatctcggtc tattcttttgc atttataagg gattttgccg atttcggcct
960

attggtaaa aaatgagctg atttaacaaa aatttaacgc gaatttaac aaaatattaa
1020

cgcttacaat ttaggtggca ctttcgggg aaatgtgcgc ggaaccctta tttgtttatt
1080

tttctaaata cattcaaata tgtatccgt catgagacaa taaccctgat aaatgctta
1140

ataatattga aaaaggaaga gtatgagttat tcaacatttc cgtgtcgccc ttattccctt
1200

tttgcggca tttgccttc ctgttttgc tcacccagaa acgctggtga aagtaaaaga
1260

tgctgaagat cagttgggtg cacgagtggg ttacatcgaa ctggatctca acagcggtaa
1320

gatccttgag agtttcgcc ccgaagaacg tttccaatg atgagcactt ttaaagttct
1380

gctatgtggc gcggattat cccgtattga cgccgggcaa gagcaactcg gtcggccat
1440

acactattct cagaatgact tggttgagta ctcaccagtc acagaaaagc atottacgga
1500

tggcatgaca gtaagagaat tatgcagtgc tgccataacc atgagtgata acactgcggc
1560

caacttactt ctgacaacga tcggaggacc gaaggagcta accgctttt tgcacaacat
1620

ggggatcat gtaactcgcc ttgatcggt ggaaccggag ctgaatgaag ccataccaaa
1680

cgacgagcgt gacaccacga tgcctgttagc aatggcaaca acgttgcgca aactattaac
1740

tggcgaacta cttactctag cttcccgca acaattaata gactggatgg aggcggataa
1800

agttgcagga ccacttctgc gctcgccct tccggctggc tggtttattg ctgataaattc
1860

tggagccggt gagcgtgggt ctcgcgttat cattgcagca ctggggccag atggtaagcc
1920

ctcccgtagt gtagttatct acacgacggg gagtcaggca actatggatg aacgaaatag
1980

acagatcgct gagataggtg cctcaactgat taagcattgg taactgtcag accaagttt
2040

ctcatatata cttagattt attaaaaact tcattttaa ttaaaagga tctaggtgaa
2100

gatcctttt gataatctca tgacaaaaat cccttaacgt gagtttctgt tccactgagc
2160

gtcagacccc gtagaaaaaga tcaaaggatc ttcttgagat ctttttttc tgcgcgtaat
2220

ctgctgcttg caaacaaaaaa aaccaccgct accagcggtg gtttgttgc cgatcaaga
2280

gctaccaact cttttccga aggttaactgg cttcagcaga gcgagatac caaatactgt
2340

ccttcttagtg tagccgtagt taggccacca cttcaagaac tctgttagcac cgcttacata
2400

cctcgctctg ctaatcctgt taccagtggc tgctgccagt ggcgataagt cgtgtcttac
2460

cgggttggac tcaagacgt agttaccgga taaggcgcag cggtcgggct gaacgggggg
2520

ttcgtgcaca cagcccagct tggagcgaac gacctacacc gaactgagat acctacagcg
2580

tgagctatga gaaagcgcca cgcttcccga agggagaaag gcggacaggt atccggtaag
2640

cggcagggtc ggaacaggag agcgcacgag ggagcttcca gggggaaacg cctggtatct
2700

ttatagtcct gtcgggttc gccacctctg acttgagcgt cgattttgt gatgctcgtc
2760

agggggcgg agcctatgga aaaacgccag caacgcggcc ttttacggt tcctggcctt
2820

ttgctggcct tttgctcaca ttttcttcc tgcgttatcc cctgattctg tggataaccg
2880

tattaccgcc tttgagttagt ctgataccgc tcgcccgcagc cgaacgaccg agcgcagcga
2940

gtcagtgagc gaggaagcgg aagagcgccc aatacgcaaa ccgcctctcc ccgcgcgttg
3000

gccgattcat taatgcagct ggcacgacag gtttcccgac tggaaagcgg gcagtga
3057

<210> 24
<211> 3817
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic, comprising Cam gene sequence, ColE1 replication origin
, f1 replication origin, lac promoter, GABAB receptor 2 domain, L

pp-OmpA gene sequence

<400> 24
gcgcaacgca attaatgtga gttagctcac tcattaggca ccccaggctt tacactttat
60

gcttccggct cgtatgttgc gtggaattgt gagcggataa caatttcaca cagggaaacag
120

ctatgaccat gattacgcca agcgcgtta actttagtaa ggaggaattha aaaaatgaaa
180

tacctgctgc cgaccgcagc cgccggtttgc ctgttactgg cggcccagcc ggctatggcg
240

atgaaagcta ctaaactggt actggcaac ccgtatgttgc gcttgaaat gggttacgac
300

tggtaggtc gtatgccgtc caaaggcagc gttgaaaacg gtgcatacaa agtcagggc
360

gttcaactga cgcctaaact gggttaccca atcactgacg acctggacat ctacactcgt
420

ctgggtggca tggtaggtcg tgcagacact aaatccaacg tttatggtaa aaaccacgac
480

accggcggtt ctccggtctt cgctggcggt gttgagtgacg cgatcactcc taaaatcgct
540

accggctctgg aataccagtg gacgaacaac atcggtgacg cacacaccat cggcactcgt
600

ccggacggag gtacatcccg cctggagggc ctacagtcag aaaaccatcg cctgcgaatg
660

aagatcacag agctggataa agacttggaa gaagtcacca tgcagctgca agacgttggc
720

ggttgctaatt gagcgcgctc actggccgtc gtttacaac gtcgtgactg gaaaaaccct
780

ggcggttaccc aacttaatcg cttgcagca catccccctt tcgcccagctg gcgtaatagc
840

gaagaggccc gcaccgatcg cccttcccaa cagttgcgca gcctgaatgg cgaatgggac
900

gccccctgta gcggcgcatt aagcgccgcg ggtgtggtgg ttacgcgcag cgtgaccgct
960

acacttgcca gcgcctagc gcccgccttct ttcgccttct tcccttcctt tctcgccacg
1020

ttcgccggct ttccccgtca agctctaaat cgggggctcc cttaggggtt ccgatttagt
1080

gcttacggc acctcgaccc caaaaaactt gattagggtg atggttcacg tagtggccca
1140

tcgcctgat agacggttt tcgcctttg acgttggagt ccacgttctt taatagtggaa
1200

ctcttgttcc aaactggaac aacactcaac cctatctcggt tctattcttt tgatttataaa
1260

gggattttgc cgatttcggc ctattggta aaaaatgagc tgatttaaca aaaatttaac
1320

gcgaatttta acaaaatatt aacgcttaca atttaggtgg cactttcg ggaaatgtgc
1380

gcgaaacccc tatttgttta ttttctaaa tacatcaaa tatgtatccg ctcatgagac
1440

aataaccctg ataaatgctt caataatatt gaaaaaggaa gagtatgagt attcaacatt
1500

tccgtgtcgc ctttattccc tttttgcgg cattttgcct tcctgtttt gctcacccag
1560

aaacgctggt gaaagtaaaa gatgctgaag atcagttggg tgcacgagtg gttacatcg
1620

aactggatct caacagcggt aagatccttg agagtttcg ccccgaaagaa cgttttccaa
1680

tgatgagcac ttttcgaccg aataaatacc tgtgacggaa gatcacttcg cagaataaat
1740

aaatcctgggt gtccctgttg ataccggaa gccctgggccc aactttggc gaaaatgaga
1800

cgttgatcgg cacgtaagag gttccaactt tcaccataat gaaataagat cactaccggg
1860

cgtattttt gagttgtcga gatttcagg agctaaggaa gctaaaatgg agaaaaaaat
1920

cactggatat accaccgttg atatatccca atggcatcgt aaagaacatt ttgaggcatt
1980

tcagtcagtt gctcaatgta cctataacca gaccgttcag ctggatatta cggcctttt
2040

aaagaccgta aagaaaaata agcacaagtt ttatccggcc tttattcaca ttcttgcccg
2100

cctgatgaat gctcatccgg aattacgtat ggcaatgaaa gacggtgagc tggatgatg
2160

ggatagtgtt cacccttggc acaccgtttt ccatgagcaa actgaaacgt tttcatcgct
2220

ctggagtgaa taccacgacg atttccggca gtttctacac atatattcgc aagatgtggc
2280

gtgtacggt gaaaacctgg cctattccc taaagggttt attgagaata tggatcgatcgt
2340

ctcagccaat ccctgggtga gtttcaccag ttttGattta aacgtggcca atatggacaa
2400

cttcttcgccc ccgtttcac catggcaaa tattatacgc aaggcgacaa ggtgctgatg
2460

ccgctggcga ttcaagggttca tcatgccgtt tgtatggct tccatgtcgg cagaatgctt
2520

aatgaattac aacagtactg cgatgagtgg cagggcgaaaa cgtaattttt ttaaggcagt
2580

tattggtgcc cttaaacgccc tggttgctac gcctgaataa gtgataataa gcggatgaat
2640

ggcagaaatt cgaaagcaaa ttcaaccgg tcgtcggttc agggcagggc cgtaatgg
2700

ccgcttatgt ctattgctgg tttaccgggtt tattgactac cggaaagcagt gtgaccgtgt
2760

gcttctcaaa tgcctgaggc cagttgctc aggctctccc cgtggaggta ataattgacg
2820

atatgatcct tttttctga tcaaaaagga tctaggtgaa gatcctttt gataatctca
2880

tgaccaaaat cccttaacgt gagtttcgt tccactgagc gtcagacccc gtagaaaaga
2940

tcaaaggatc ttctttagat ccttttttc tgcgctaat ctgctgcttg caaacaaaaa
3000

aaccaccgct accagcggtg gtttgttgc cgatcaaga gctaccaact cttttccga
3060

aggttaactgg cttcagcaga gcgcagatac caaatactgt cttcttagtg tagccgtagt
3120

taggccacca cttcaagaac tctgttagcac cgctacata cctcgctctg ctaatcctgt
3180

taccagtggc tgctgccagt ggcgataagt cgtgtttac cgggttggac tcaagacgt
3240

agttaccgga taaggcgcag cggtcgggct gaacgggggg ttcgtgcaca cagcccagct
3300

tggagcgaac gacctacacc gaactgagat acctacagcg tgagctatga gaaagcgcca
3360

cgctcccgaa agggagaaag gcccacaggat atccggtaag cggcagggtc ggaacaggag
3420

agcgcacgag ggagcttcca gggggaaacg cctggtatct ttatagtcct gtcggtttc
3480

gccacctctg acttgagcgt cgattttgt gatgctcgac agggggccgg agcctatgga
3540

aaaacgcccag caacgcggcc ttttacggt tcctggcctt ttgctggcct tttgctcaca
3600

tgttcttcc tgcgttatcc cctgattctg tggataaccg tattaccgcc tttgagttag
3660

ctgataccgc tcgccgcagc cgaacgaccg agcgcagcga gtcagtgagc gaggaagcgg
3720

aagagcgccc aatacgcaaa ccgcctctcc ccgcgcgttg gccgattcat taatgcagct
3780

ggcacgacag gtttcccgac tggaaagcgg gcagtga
3817